

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims: Please amend the claims as follows:

We claim:

Claim 1. (Withdrawn, Currently Amended) A DNA molecule corresponding to a nucleotide polynucleotide whose sequence selected from a group consisting of is set forth in SEQ ID NO 1, SEQ ID NO 3 and or SEQ ID NO 5.

Claim 2. (Withdrawn, Currently Amended) A DNA molecule comprising a nucleotide sequence The polynucleotide according to Claim 1, commencing with position 70, which encodes for a polypeptide having the properties of the major allergen Phl p 4 from *Phleum pratense*.

Claim 3. (Withdrawn, Currently Amended) A DNA molecule corresponding to a polynucleotide comprising a nucleotide sequence which encodes for the major allergen Phl p 4 from *Phleum pratense*.

Claim 4. (Withdrawn, Currently Amended) A DNA molecule which hybridises hybridizes with a DNA molecule the polynucleotide sequence according to claim 1 under stringent conditions and originates from DNA sequences of Poaceae species.

Claim 5. (Withdrawn, Currently Amended) A DNA molecule encoding which encodes for a polypeptide which cross-reacts immunologically with the major allergen Phl p 4 from *Phleum pratense* and originates from DNA sequences of Poaceae species.

Claim 6. (Withdrawn) A DNA molecule corresponding to a partial sequence or a combination of partial sequences according to claim 1 which encodes for an immunomodulatory, T-cell-reactive fragment of a group 4 Poaceae allergen.

Claim 7. (Withdrawn, Currently Amended) A The DNA molecule according to Claim 6, encoding which encodes for a Phl p 4 fragment which is selected from a group consisting of
(a) [-] fragment 1-200, with amino acids 1-200 of Phl p 4, or
(b) [-] fragment 185-500, with amino acids 185-500 of Phl p 4.

Claim 8. (Withdrawn, Currently Amended) A-DNA molecule corresponding to a The polynucleotide sequence according to claim 1, encoding which encodes for an immunomodulatory T-cell-reactive fragment, characterised in that the wherein said nucleotide sequence has been specifically modified by specific mutation of individual codons, elimination or addition.

Claim 9. (Withdrawn, Currently Amended) A-DNA molecule The polynucleotide according to Claim 8, characterised in that the wherein said mutation results in the replacement of one, more or all cysteines of the corresponding polypeptide with another amino acid.

Claim 10. (Withdrawn, Currently Amended) A recombinant DNA expression vector or a cloning system comprising a-DNA molecule the polynucleotide according to claim 1, functionally linked to an expression control sequence.

Claim 11. (Withdrawn, Currently Amended) A transformed host organism transformed with a DNA molecule which expresses the polypeptide according to claim 1 or an expression vector containing it claim 13.

Claim 12. (Withdrawn, Currently Amended) A process for the preparation of a polypeptide encoded by a DNA sequence according to claim 1 by cultivation of claim 13 comprising culturing a host organism containing it according to Claim 11 which expresses said polypeptide and isolation of isolating the corresponding polypeptide from the culture.

Claim 13. (Currently Amended) A polypeptide which comprises

- (a) a polypeptide whose sequence is set forth in SEQ ID NO: 2, SEQ ID NO: 4 or SEQ ID NO: 6,
- (b) a polypeptide comprising a mutation, elimination or addition of at least one amino acid residue in the polypeptide sequence set forth in (a),
- (c) a polypeptide which is encoded by a DNA sequence according to claim 1 polynucleotide whose sequence is set forth in SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 5, or
- (d) a polypeptide which is encoded by a polynucleotide sequence which hybridizes to the

complement of the polynucleotide sequences in (c) under stringent conditions and originates from DNA sequences of Poaceae species

(e) a polypeptide which is encoded by a single nucleotide polymorph of the polynucleotide sequence set forth in (c),

wherein each of the polypeptides of (a) to (e) is immunogenic and induces an immunomodulatory T-cell reactive response in a host.

Claim 14. (Cancelled)

Claim 15. (Currently Amended) A pharmaceutical composition comprising at least one polypeptide according to Claim 13 44 and a pharmaceutically acceptable carrier optionally further ~~active ingredients and/or adjuvants for the diagnosis and/or treatment of allergies in the triggering of which group 4 allergens of the Poaceae are involved.~~

Claim 16. (Withdrawn, Currently Amended) ~~Use of at least one polypeptide according to Claim 14 for the preparation of a medicament~~ A method for the diagnosis and/or treatment of allergies in the triggering of an allergic condition which is triggered by group 4 allergens of the Poaceae are involved and/or for the prevention of such allergies said allergic condition in a subject in need thereof comprising administering to said subject an effective amount of a polypeptide of claim 13.

Claim 17. (Cancelled)

Claim 18. (Cancelled)

Claim 19. (Cancelled)

Claim 20. (Withdrawn, Currently Amended) ~~Use of at least one DNA molecule according to Claim 17 or at least one expression vector containing it for the preparation of a medicament for An immunotherapeutic DNA vaccination v~~ accine comprising a polypeptide of claim 13 and an acceptable carrier, wherein said vaccine is capable of generating an immunomodulatory, T-cell response in a host of patients having allergies in the triggering of which group 4 allergens of the Poaceae are involved and/or for the prevention of such allergies.

Claim 21. (New) An immunomodulatory, T-cell-reactive fragment of a group 4 *Poaceae* allergen which comprises a partial sequence or a combination of partial sequences of at least one polypeptide of claim 13.

Claim 22. (New) The immunomodulatory, T-cell-reactive fragment of a group 4 *Poaceae* allergen according to claim 21 which is

- (a) fragment 1-200, with amino acids 1-200 of Phl p 4, or
- (b) fragment 185-500, with amino acids 185-500 of Phl p 4.

Claim 23. (New) The polypeptide according to Claim 13 (b), wherein said mutation results in the replacement of at least one cysteine residue of a polypeptide whose sequence is set forth in SEQ ID NO: 2, SEQ ID NO: 4 or SEQ ID NO: 6 with another amino acid residue.

Claim 24. (New) The polypeptide according to Claim 13 (d), which comprises replacement of at least one cysteine residue of the polypeptide which is encoded by a polynucleotide whose sequence is set forth in SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 5 with another amino acid residue.

Claim 25. (New) An immunotherapeutic vaccine comprising a polypeptide of claim 14 and an acceptable carrier, wherein said vaccine is capable of generating an immunomodulatory, T-cell response in a host.